

Syllabus

TEC D 107 – Technical Drawing Olympic College – Bremerton, WA Credits:4

Instructor: Peter Sanchez
Office: PSNS-281 / OC-BUS 207
Phone: PSNS (360) 476-8713 / OC (360) 475-6552
OC Fax: (360) 475-7365
E-mail: psanchez@olympic.edu
Professors Online Webpage: <http://faculty.olympic.edu/>

Course Description:

This is a beginning drawing course that teaches introductory hand drawing/drafting applications. Concepts taught will include: care and use of drafting instruments, understanding of line types and their applications, basic freehand sketching, lettering techniques and applications, orthographic projections and sections, auxiliary projections, isometric drawings and sections, dimensioning conventions and applications, and an introduction to descriptive geometry.

Introduction to principles of descriptive geometry used to solve 3-dimensional problems graphically via successive auxiliary projections. Study of space relationships for points, lines and planes that precede design. Also, an introduction to development of surfaces and intersections

This course will encompass many of the fundamental principles of graphics as they are used in the engineering field.

Course Objective:

The successful student will develop the necessary skills to perform basic sketching and drawing, employing traditional drawing tools such as pencils, straight edges, triangles and scales. The student will demonstrate through drawing exercises, a working understanding of lines, their types and meaning, the various types of views and standard dimensioning practices.

The successful student will perform the analysis and solution of three-dimensional problems through the application of orthographic or multi-view projections principles. Demonstrate the ability to analyze and make measureable space relationships that precede design using the principles of descriptive geometry. Work and communicate effectively with others, as well as independently to analyze and solve graphical problems involving points, lines, and planes.

Prerequisite:

Prior training and/or experience is not required to enter this course. Basic math skills will be helpful in some areas of study. However, it is expected that all students will apply themselves with true dedication. On the whole, the material is not difficult, just time consuming. Therefore, it is imperative that each student make a concerted effort to keep up with the workload.

Recommended Text:

Fundamentals of Modern Drafting
ISBN: 1-4018-0946-4 By Paul Rose Wallach

Required Materials:

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| *Bow Compass: capable of drawing a 5 ½” radius | *Dividers: with 5 to 6 inch legs |
| *T Square: 24” or 36” | *Drawing board: approximately 18” x 24” |
| *Scales: Architectural, Engineering, & Metric | *Triangle: 30-60-90 degrees (10” to 12”) |
| *Triangle: 45-45-90 degrees (10” to 12”) | *Protractor |
| *French Curve | *Drafting tape or Tape Dots – one box |
| *Eraser: Soft White | *Erasing Shield |
| *Dusting Brush | *Sandpaper Pad: for sharpening compass leads |
| *Circle template: 1” and smaller | *Isometric circle template |
| *Ames Lettering Guide | *Plain white paper – 8 ½ X 11 |
| *Pencils: 0.3mm & 0.5mm (others as desired) | |
| Leads: Hard (H,6H-8H), Medium (HB, F, 2H),Soft (B, 2B) | |

Course Requirements:**Final course grade will be based on:**

<i>In-Classroom Exercises</i>	100 pts (10 pts. ea. exercise)
<i>Regular Assignments</i>	300 pts (10 pts. ea. assignment)
<i>Final Portfolio</i>	100 pts. (Required)

Total: 500 pts.

Grading procedure

The final grade is calculated by dividing your total points by the total possible points. The percentage result is then multiplied by 4.00 to determine your decimal grade.

Example: 500 total points possible 425 points earned by student

$$425 / 500 = .85 \quad .85 \times 4.00 = \underline{\underline{3.4 \text{ G.P.A.}}}$$

Attendance and Participation

Because of the extensive amount of information required to complete the drawing assignments in this class, regular attendance in class will be expected.

Participation will play an essential role in getting through this class. Participation is interpreted by the student’s undivided attention during the lecture, understanding of course material when called upon, interest, and enthusiasm.

Note:

1. If a student is over 15 minutes late for class, the student is considered tardy that day.
(Each Tardy = - 5 pts.)
2. If a student is an hour or more late for class, or if a student leaves class early, the student is considered absent for the day.
(Each Absent = - 10 pts.)

In-Classroom Exercises

Because of the extensive amount of information required to complete the drawing assignments, there will be in-classroom exercises administered throughout the term as a part of the classroom lectures.

Regular Assignments

Drawings: As a matter of routine, drawings will be started and finished in class. As a general rule, all assignments will be due at the end of the term, however, I collect and grade drawings daily, so if a student would like immediate feedback, then they have the option to turn drawings in at their leisure.

Your work will be assessed and graded employing the following criteria:

Proper Arrangement on Sheet, Line Quality, Lettering Quality, Technical Accuracy, and Completeness.

Note: *Assignment Packets will be issued by the Instructor on the first day of class and then all additional assignments will be posted on the instructors web page for students to print at their leisure.*

Final Portfolio

Your completed course work will be arranged in a Portfolio. This will enable you to showcase your course work to anyone interested in your ability to present technical information in a well organized format. But more importantly, it will show me your evolvment/progression during the course of the term.

The portfolio enclosure will be a three ring binder that will hold plastic sleeves which are 8 ½" x 11" in size. Organize your drawings based on the chapters covered in the course.

Classroom Policies:

Cell Phones:

Classroom use is prohibited. Either turn off completely or set mode to vibrate. Do not use cell phone during active lecture or demonstration time. Break times will be provided and phones can be used during that time period.

Cheating

Cheating in any form is grounds to fail the course and will be reported to Olympic College.

Note: Tracing or copying others work is considered cheating!

Additional Lab Hours:

Completion of graphic assignments may require an investment of additional student time. Therefore, the Drafting lab at the Olympic College campus is available when no other class is in session. It is located in Shop 115 and is available for use after hours and on weekends, however, Lab is closed between midnight and 6am.

Note: Students must call security at (360) 475-7800 to open building/lab room and must have their

Student I.D. available for security verification. Also, students must notify security when they are leaving so they can lock up the classroom.

Resources:

American Disabilities Act Statement:

Any student who feels he/she may need an accommodations based on the impact of a disability should contact the office of Access Services located in Humanities 114, or call (360) 475-7540 for information or an appointment.